4 CRUDE MAJOR EWO NO. :	BE132-I1		REV: 0	
PLANT: 4 CRUDE	SAP COST CENTI	CR:	DD173-EXF)
W/O # 320820-001	PROJECT / OUTA	GE #:	SDD108A	
C-1100 OVHD CORROSION PROBES REPLACE	CEMENT			
-				
MOC #:				
Level 1 - Management of Change Review Will This Change: Cause the use of different feeds, chemicals, or catalysts?				
Cause the use of different process conditions, upstream/downstream plants?	instrumentation, proce	ess control	, or affect	
Cause the use of new or modified equipment (which is other than in	-kind)?		
Alter equipment siting, building, trailer location	ons, roads, or fire prot	ection?		
Require modifying existing and/or developing	new procedures?			
Affect employee emergency response due to a	n organizational chan	ge?		
Transfer the responsibility for any environmer	-		:?	
Alter the permanent staffing level or organiza	tion of any safety-sen	sitive job?		
SAFETY OPERATOR IN VOC SERVICE? IN PLANT WE		T WELDING	G?	
X Yeş No Yes	No [No Yes X No		0
APPROVALS				
OPERATIONS: K. Sohnrey	DATE: 1/5/h	PHO)NE: 2-2042	2
INSPECTION'S: J. Beauregard	DATE: 116 (20)	// PHO)NE: 2-518'	7
IMPACT. T.L: S. Woolley	DATE: 1/12/	<i>y</i> .	ONE: 2-540	4
MAINTENANCE: M. Paulson	DATE: /////	/ PHO)NE: 2-170	8
R. RAMIREZ				
JAN 1 2 2011				
				indicate and a second s

ort Date: January 06, 2011



Data Source: Meridium

IDENTIFICATION					
Worklist ID:	WL-1005233542	.	15	00001108	56
	0955-003-001: C-1100 OVHD	Asset			
Unit:	0955: 4 CRUDE UNIT PLT 11		-	2011 D&R I	•
Date Created:	05/03/2010			05/24/201	0
MFR:			Model No	-	
MFR Serial No:		Asset	t Type:	221 - 221	- Process Pipir
GENERAL					
Available During	Run ⁱ²				
Bill of Material	7 P. (1970 - 1970) T. (1970 - 1971)				
X Staging Require					
Comments:					-
					Daniad
WORKLIST ITEMS					<u>Denied</u> Signature
Glean Internally					
Repair Gasket S		retacianian:	***************************************		
Hydrotest					
Hanger			OTTO THE PROPERTY OF THE PROPE		
Shoes	1211 (10 4 10 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		***************************************		
Bolting	70 (1 10 10 10 10 10 10 10 10 10 10 10 10 10				
	owork and a	*			
Supports					
Insulation					
Coating			acenti il international del constanti del constanti del constanti del constanti del constanti del constanti del	***************************************	***************************************
X Additional Instru	replace corrosion probes du	ring outage.			
Additional Instruc	tion				
Additional Instruc					***************************************
Additional Instruc					
Note:					
History:					
Need to replace	during outage for continued corrosion i	monitoring capabilities.			

Last Update: January 06, 2011 © 2005 Chevron Corporation

Content Owner: MERCAB
Technical Owner: Meridium IT Support

Page 1 of 1
Company Confidential



Juit Date, Janua		20.		-MEHOIOM
IDENTIFICATION Worklist ID: Equip. Location: Unit: Date Created: MFR: MFR:	WL-1005233541 0955-003-002: C-1100 OVHD 0955: 4 CRUDE UNIT PLT 11 05/03/2010	Asset ID: Activity ID: Date Modified: MFR Model No Asset Type:	:	Major S/D
		,		, ,
Available During Bill of Material X Staging Require Comments:				
WORKLIST ITEMS				<u>Denied</u> Signature
Clean Internally Repair Gasket Hydrotest Hanger Shoes Bolting Dead Leg Supports Insulation Coating	Surface			
X Additional Instru Additional Instruc Additional Instruc Additional Instruc	stion ston			
Note: History: Work can't be per	formed on the run due to condition of the corrosion probes on monitoring capabilities.	. Need to replace	during out	age for

Last Update: January 06, 2011 © 2005 Chevron Corporation

Content Owner: MERCAB Technical Owner: Meridium IT Support

Page 1 of 1 Company Confidential



ort Date: November 15, 2010	Data Source	e: Meridium
IDENTIFICATION		
Worklist ID: <u>WL-1005233542</u>		
Equip. Location: 0955-003-001: C-1100 OVHD	Asset ID: 000011	10856
Unit: 0955: 4 CRUDE UNIT PLT 11	Activity ID: 2011 D8	⋅R Major S/D
Date Created: 05/03/2010	Date Modified: 05/24/2	2010
MFR:	MFR Model No:	
MFR Serial No:	Asset Type: 221 - 2	21 - Process Piping
MFR: MFR Serial No: GENERAL Corrosion Prober Corrosion Prob	e.	
Available During Run?		
Bill of Material		
X Staging Required Comments:		
Comments,		
	MANANANAN MANANAN MANANANAN	
		<u>Denied</u>
WORKLIST ITEMS		Signature
Clean Internally		***
Repair Gasket Surface		
Hydrotest Hanger		
Shoes	:	
Bolting		
Dead Leg	· · · · · · · · · · · · · · · · · · ·	
Supports		
Insulation Coating		
Coamy		
X Additional Instruction replace corrosion probes during outage.		
Additional Instruction		
Additional Instruction		
Additional Instruction Note:		
Note. History:		
Need to replace during outage for continued corrosion monitoring capabilit	ies,	
	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	

Dinnings odrive Piping upgrades.

Last Update: November 15, 2010

© 2005 Chevron Corporation

Content Owner: MERCAB

Technical Owner: Meridium IT Support

Page 7 of 21

Company Confidential



ort Date: Nover	mber 15, 2010	Data	a Source:	Meridium
IDENTIFICATION	~~			
Worklist ID:	WL-1005233541			
Equip. Location:	0955-003-002: C-1100 OVHD	Asset ID:	00001108	
Unit:	0955: 4 CRUDE UNIT PLT 11	•	2011 D&R	•
Date Created:	05/03/2010	Date Modified:		10
MFR:		MFR Model No		george & V
MFR Serial No:		Asset Type:	221 - 221	- Process Piping
GENERAL Con	rosion Probes	·····		
Available During	Ruis?			
Bill of Material	100 (2010 C) p			
X Staging Requires Comments:				
				ann a chairteann ann ann ann ann ann ann ann ann ann
				*
MODELIOT ITEMS				Denied
WORKLIST ITEMS				Signature
Clean Internally Repair Gasket (
Hydrotest	admirace			
Hanger		(janilija a. 1900.) 1900. (janilija ja janilija ja j		
Shoes	10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			
Bolting	10.00 (1.00			
Dead Leg				
Supports Insulation				
Coating	1900 - 12 - 1900 1900 - 1900 - 1900 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900			
3			14	
X Additional Instru				
Additional Instruc	20/2/[Franching			-
Additional Instruct Additional Instruc				
Note:	2.10.1 (Entering of		I	
History:				
		bland to von!	ali salama assa	7
	formed on the run due to condition of the corrosion probes. on monitoring capabilities.	iveed to replace	auring outa	age for
	and and an entire and	aanga totaka aa maa kanaka an akkoo doo doo kanaka ka		

Last Update: November 15, 2010 © 2005 Chevron Corporation

Content Owner: MERCAB

Technical Owner: Meridium IT Support

Page 8 of 21
Company Confidential

Equipment Reliability Group

Fixed Equip. Reliability

INSPECTION RECOMMENDATION

Richmond Refinery, Richmond CA I. RECO IDENTIFICATION: RECO#: PPT #: Date Written: **PRIORITY RECO TYPE** MAINT. ZONE Plant: D&R Immediate Action Information Only Cracking Plt. Eqp. #: Equip. / Piping Planned Shutdown Eng. Required Hydro Brass Tag#: **Next Opportunity** Eng. Not Req'd D&R Routine Other Other Service: Stabilizer overhead coolers II. MANAGEMENT OF CHANGE: Level 1 Review Summary Will new feeds, chemicals or catalysts be used? (See RI-313 for new chemicals, Oprs. Coord for new feeds) Will this work lead to operation outside established limits? Which Equipment? List Equipment if Yes NO Is this repair or replacement other than "In-kind"? NO Does this involve developing new and / or modifying existing procedure? NO Does this work involve the addition of new equipment? (Send copy of the MOC form to EAD for new equipment) Will this impact upstream or downstream plants? If "YES" ... then which Plants? List Plant (s) if Yes If any of the above questions were answered "YES", then a Level 2 review is required. III. RECO INFORMATION (Summary and Details): One Line Summary: 0955-003-002 Overhead line corrosion probes # Information / Recommendations INFORMATION 0955-003-002 outlet corrosion probes will need to be replaced. Under normal circumstances these can be serviced on the run, but due to their extended service the probes have corroded and will not properly seal to allow changing them on the run. RECOMMENDATIONS Work with Nalco to ensure that the proper corrosion probes are available during the S/D window. Replace the corroded probes to allow continual corrosion monitoring on the run. Contact John Beauregard 2-5187 with questions or concerns. **Material, Fabrication, Welding, Inspection and Testing shall be performed in accordance with the Richmond Refinery - Metals Craft, Quality Assurance Procedures. Total Cost per Total Total Total Cost Estimate by: Labor Cost: Man-Days Man-Day M'trl. Cost: Cost: X '. RECO APPROVAL (Enter Name & Phone): Name Phone Name Phone Area Inspector: John Beauregard #2-5187 Engineering:

ERG (FER - - Reco Form)

Dale Blume

Lead Inspector:

PAGE 1 of 2

Operations:

#2-3301

Form Rev. 12/01

INSPECTION RECOMMENDATION

I. RECO IDENTIFICATION (PAGE 2):		
4-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1		
.₹ECO #:	PPT #:	Date Written:

III. RECO INFORMATION (PAGE 2):





